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Report on the review of the report to facilitate the calculation of the assigned amount for the second commitment period of the Kyoto Protocol of the United Kingdom of Great Britain and Northern Ireland

Note by the expert review team

Summary

According to decision 2/CMP.8, each Party with a quantified emission limitation and reduction commitment inscribed in the third column of Annex B to the Kyoto Protocol, as contained in annex I to decision 1/CMP.8, shall submit to the secretariat a report to facilitate the calculation of the assigned amount for the second commitment period of the Kyoto Protocol. In accordance with decision 22/CMP.1, annex I, paragraph 11, in conjunction with decision 4/CMP.11, the report to facilitate the calculation of the assigned amount is subject to a review. This report presents the results of the technical review of the report to facilitate the calculation of the assigned amount for the second commitment period of the Kyoto Protocol, conducted by an expert review team in accordance with the “Guidelines for review under Article 8 of the Kyoto Protocol”. The review took place from 12 to 17 September 2016 in Bonn, Germany.

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I. Introduction¹

1. The review of the report to facilitate the calculation of the assigned amount for the second commitment period of the Kyoto Protocol (hereinafter referred to as the report to facilitate the calculation of the assigned amount) of the United Kingdom of Great Britain and Northern Ireland was organized by the UNFCCC secretariat, in accordance with the “Guidelines for review under Article 8 of the Kyoto Protocol”.² The review took place from 12 to 17 September 2016 in Bonn, Germany, and was coordinated by Ms. Claudia do Valle and Mr. Roman Payo (UNFCCC secretariat). Table 1 provides information on the composition of the expert review team (ERT) that conducted the review of the United Kingdom.

2. A draft version of this report was communicated to the Government of the United Kingdom, which provided comments that were considered and incorporated, as appropriate, into this final version of the report.

Table 1

Composition of the expert review team that conducted the review of the United Kingdom of Great Britain and Northern Ireland

<i>Area of expertise</i>	<i>Name</i>	<i>Party</i>
Generalist	Mr. Newton Paciornik	Brazil
	Ms. Daniela Romano	Italy
Energy	Mr. Alexey Cherednichenko	Kazakhstan
	Mr. Hiroshi Ito	Japan
	Mr. Ole-Kenneth Nielsen	Denmark
	Mr. Shengmin Yu	China
IPPU	Ms. Niculina Mihaela Balanescu	Romania
	Mr. Julien Jabot	Norway
	Ms. Eva Krtkova	Czechia
Agriculture	Mr. Paul Duffy	Ireland
	Mr. Tomas Paulaitis	Lithuania
	Mr. Braulio Pikman	Brazil
LULUCF	Ms. Tracy Johns	United States of America
	Mr. Mattias Lundblad	Sweden
	Ms. Marina Shvangiradze	Georgia
Waste	Ms. Sumaia Elsayed	Sudan
	Ms. Katja Pazdernik	Austria
Lead reviewers	Mr. Nielsen	
	Mr. Paciornik	

¹ At the time of publication of this report, the United Kingdom of Great Britain and Northern Ireland had submitted its instrument of ratification of the Doha Amendment; however, the amendment had not yet entered into force. The implementation of the provisions of the Doha Amendment is therefore considered in this report in the context of decision 1/CMP.8, paragraph 6, pending the entry into force of the amendment.

² Decision 22/CMP.1 and its annex and any revisions contained in decision 4/CMP.11 and its annex I.

Abbreviations: IPPU = industrial processes and product use, LULUCF = land use, land-use change and forestry.

II. Summary of the reporting on mandatory elements in the report to facilitate the calculation of the assigned amount

3. Table 2 provides a summary of the ERT’s assessment of the reporting of mandatory elements by the United Kingdom in its report to facilitate the calculation of the assigned amount. Key data and elections by the Party are included in table 4.

Table 2

Expert review team’s assessment of the reporting of mandatory elements by the United Kingdom of Great Britain and Northern Ireland in its report to facilitate the calculation of the assigned amount

<i>Item</i>		<i>Comment</i>
<i>General Party information</i>		
Dates of submission		Original submission: 1 July 2016 Revised submission: 29 August 2017
Are there any missing categories or issues related to completeness ^a in the reporting of GHG emissions by sources and removals by sinks for the base year or period?	Yes	For further information, see ID#2 and ID#8 in table 3
Was the GHG inventory recalculated in accordance with decision 4/CMP.7 for all years from 1990 to the most recent year available?	Yes	
Did the Party report the base year for NF ₃ ?	Yes	See annex I, table 4
<i>Information related to agreement by the Party under Article 4 of the Kyoto Protocol to implement commitments jointly</i>		
Has complete information been reported in accordance with decision 3/CMP.11, paragraph 11, by the Party in fulfilment of its agreement under Article 4 of the Kyoto Protocol in relation to the following:		
(a) Application of decision 1/CMP.8, paragraphs 23–26, related to carry-over and the previous period surplus reserve account	Yes	For further information, see ID#7 in table 3
(b) Calculation of base year emissions	No	See annex I, table 4. For further information, see ID#2, ID#3 and ID#8 in table 3
(c) Calculation of the assigned amount	Yes	See annex I, table 4. For further information, see ID#1, ID#2 and ID#3 in table 3
(d) Calculation of the commitment period reserve	No	See annex I, table 4. For further information, see ID#4 in table 3
(e) Application and calculation pursuant to decision 2/CMP.7, annex, paragraph 13	No	See annex I, table 4. For further information, see ID#5 in table 3

<i>Item</i>		<i>Comment</i>
<i>Information related to the assigned amount and the commitment period reserve</i>		
Was the assigned amount in the original submission calculated in accordance with Article 3, paragraph 8, of the Kyoto Protocol, Article 3, paragraphs 7 bis and 8 bis, as contained in the Doha Amendment, and decision 13/CMP.1 in conjunction with decision 3/CMP.11?	No	See annex I, table 4. For further information, see ID#1, ID#2 and ID#8 in table 3
Has the Party reported in the original submission the difference between the assigned amount for the second commitment period and average annual emissions for the first three years of the first commitment period, multiplied by 8?	Yes	See annex I, table 4. For further information, see ID#7 in table 3
Has the Party indicated in the original submission the approach ^b used to calculate average annual emissions for the first three years of the first commitment period?	Yes	See annex I, table 4. For further information, see ID#7 in table 3
Did land-use change and forestry constitute a net source of GHG emissions in the base year, and therefore did the Party include emissions from deforestation in the calculation of the assigned amount?	Yes	See annex I, table 4. For further information, see ID#1, ID#2, ID#3 and ID#8 in table 3
Was the commitment period reserve in the original submission calculated in accordance with the annex to decision 18/CP.7, the annex to decision 11/CMP.1, the annex to decision 13/CMP.1, paragraph 8 quinquies, and decision 1/CMP.8, paragraph 18?	No	See annex I, table 4. For further information, see ID#4 in table 3
<i>Information related to activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol</i>		
If the Party identified activities elected under Article 3, paragraph 4, of the Kyoto Protocol, are these elections in accordance with decision 2/CMP.7, annex, paragraphs 6–8?	Yes	See annex I, table 4
Do the activities elected under Article 3, paragraph 4, of the Kyoto Protocol for the second commitment period include at least those activities elected for the first commitment period?	Yes	See annex I, table 4
Is information reported on how the national system under Article 5, paragraph 1, of the Kyoto Protocol will identify land areas associated with all additional elected activities and how the Party ensures that land that was accounted for in the first commitment period continues to be accounted for in the second commitment period?	No	For further information, see ID#6 in table 3
Has the Party identified for each activity under Article 3, paragraphs 3 and 4, of the Kyoto Protocol whether it intends to account annually or for the entire commitment period?	Yes	See annex I, table 4
Did the Party provide information on the forest management reference level, including, if appropriate, information on technical corrections and information on how emissions from harvested wood products originating from forests prior to the start of the second commitment period have been calculated in the reference level?	Yes	See annex I, table 4
Has the Party reported the quantity amounting to 3.5% of the base year GHG emissions, excluding LULUCF, in the original submission?	No	See annex I, table 4. For further information, see ID#5 in table 3
Did the Party indicate whether it intends to apply the provisions to exclude emissions from natural disturbances for the accounting for afforestation and reforestation and/or	Yes	See annex I, table 4

<i>Item</i>		<i>Comment</i>
forest management and provide the relevant information in accordance with decision 2/CMP.7, annex, paragraph 33?		
<i>Information related to the national system and national registry</i>		
Was a description of the national system provided, in accordance with the guidelines for national systems under Article 5, paragraph 1, of the Kyoto Protocol?	NA	This information was already reported and reviewed as part of the initial review of the report to facilitate the calculation of the assigned amount for the first commitment period and did not need to be reported
Was a description of the national registry provided, in accordance with the requirements contained in the annex to decision 13/CMP.1, the annex to decision 5/CMP.1 and the technical standards for data exchange between registry systems adopted by the CMP?	NA	This information was already reported and reviewed as part of the initial review of the report to facilitate the calculation of the assigned amount for the first commitment period and did not need to be reported

Abbreviations: CMP = Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol, GHG = greenhouse gas, LULUCF = land use, land-use change and forestry, NA = not applicable.

^a Issues related to missing categories and completeness are only for those categories for which methods are available in the *2006 IPCC Guidelines for National Greenhouse Gas Inventories*.

^b Parties may elect to calculate average annual emissions for the first three years of the first commitment period by including either the gases and sources listed in Annex A to the Kyoto Protocol, or the GHGs, sectors and source categories used to calculate the assigned amount for the second commitment period.

III. Technical assessment of the elements reviewed

4. In accordance with decision 22/CMP.1, and in conjunction with decisions 4/CMP.11 and 10/CMP.11, the review of the report to facilitate the calculation of the assigned amount for the United Kingdom has been undertaken together with the review of the inventory submission for the first year of the second commitment period.³ Table 3 contains additional information, if any, to support the ERT's assessment included in table 2 above of the Party's capacity to account for its emissions and the assigned amount, specifically related to: the calculation of the assigned amount for the second commitment period and any adjustments applied; information related to Article 3, paragraph 7 ter, as contained in the Doha Amendment; information related to reporting of activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol; calculation of the commitment period reserve; and the national system and national registry.

³ The annual review report on and 2016 inventory submission of the United Kingdom is available at <<http://unfccc.int/resource/docs/2017/arr/gbr.pdf>>, while the annual review report on the 2015 inventory submission of the United Kingdom is available at <<http://unfccc.int/resource/docs/2016/arr/gbr.pdf>>.

Table 3

Additional findings of the expert review team, if any, related to the United Kingdom of Great Britain and Northern Ireland's reporting of mandatory elements in its report to facilitate the calculation of the assigned amount

ID#	Finding classification	Description of the finding	Classification of problem
1.	Calculation of the assigned amount	<p>The ERT notes that the European Union, its member States and Iceland stated that they will fulfil their reduction targets under the second commitment period jointly.^a The joint assigned amount for the European Union, its member States and Iceland is calculated pursuant to the quantified emission limitation and reduction commitment listed in the third column of the table contained in Annex B to the Kyoto Protocol, while the assigned amount of each member State is determined in accordance with the terms of the joint fulfilment agreement. Specifically, the assigned amount for the United Kingdom is fixed, based on Annex II to European Commission decision 2013/162/EU and as adjusted by Commission implementing decision 2013/634/EU^b</p> <p>LULUCF is a net source of GHG emissions in 1990 for the United Kingdom. Therefore, in accordance with decision 13/CMP.1 in conjunction with decision 3/CMP.11, total base-year emissions for the purpose of the calculation of the assigned amount under the Kyoto Protocol include GHG emissions from conversion of forests (deforestation). In its report to facilitate the calculation of the assigned amount (initial report), the United Kingdom reported the emissions from conversion of forests (deforestation) in the base year as 246 048 t CO₂ eq (or 1 574 707 t CO₂ eq when multiplied by 8 years and taking 80% of the total). The same value was reported in the original submission and the revised submission (see ID#2 below)</p> <p>In its initial report, the United Kingdom provided clear reference to the joint fulfilment agreement. The assigned amount reported for the second commitment period under the Kyoto Protocol is 2 744 937 332 t CO₂ eq, including GHG emissions from conversion of forests (deforestation)</p>	Not a problem
2.	Calculation of the assigned amount	<p>The United Kingdom stated in its original submission of the report to facilitate the calculation of the assigned amount (initial report) (section 1.4) that the territorial coverage for the second commitment period of the Kyoto Protocol has been extended to include coverage of emissions from the United Kingdom's Crown dependencies and those Overseas Territories that have joined the United Kingdom's ratification of the Kyoto Protocol during the first commitment period; however, the coverage had yet to be fully determined as it will depend on which of the United Kingdom's Crown dependencies and overseas territories will join its ratification of the second commitment period</p> <p>The ERT was of the opinion that the non-definition of the territorial scope for the second commitment period of the Kyoto Protocol in the initial report could affect the base-year estimates, especially given that land-use change and forestry was reported as a net source in the base year (under Article 3, paragraph 7 bis, of the Kyoto Protocol). The ERT was also of the view that changes in the territorial coverage of the United Kingdom could result in changes to the base year and the assigned amount of the Party, with consequences for the calculation of the base year and joint assigned amount of the European Union, its member States and Iceland</p> <p>In response to a question raised by the ERT during the review, the United Kingdom explained that "GHG emissions reported by UK in its initial report under the second commitment period of the Kyoto Protocol include those from the UK, UK's Crown dependencies of Guernsey, Jersey and Isle</p>	Completeness

ID#	Finding classification	Description of the finding	Classification of problem
		<p>of Man, and from the UK’s overseas territories of Bermuda, Cayman Islands, Falkland Islands and Gibraltar”, and that “the definition of the final territorial coverage was still pending because it requires the constitutional processes of each overseas territory and Crown dependency to be followed in full” (see also document FCCC/ARR/2016/GBR, ID#G.12 and ID#G.13)</p> <p>The ERT decided to include a potential question of implementation related to the functioning of the national system in the draft report sent to the Party for comments. On 29 August 2017, the United Kingdom submitted a revised version of the initial report, which clarified that territorial coverage has been extended to include complete coverage of emissions from the United Kingdom, its Crown dependencies (Guernsey, Jersey and the Isle of Man) and its overseas territories that have joined the United Kingdom’s ratification of the Convention and intend to join its ratification of the Kyoto Protocol during its second commitment period (Cayman Islands, Falkland Islands and Gibraltar), and that Bermuda is not included in the United Kingdom’s territorial coverage for the second commitment period. The Party also informed the ERT that Montserrat was not included under the Kyoto Protocol. Based on this information, the ERT concluded that the potential question of implementation was no longer applicable</p> <p>However, the information in the CRF tables resubmitted on 21 September 2017 led the ERT to conclude that reporting on the LULUCF sector is not complete: the estimates of emissions and removals do not cover the overseas territories of the Cayman Islands and Gibraltar (see ID#8 below, and document FCCC/ARR/2016/GBR, KL.16), and that this omission may impact the reported value of emissions from the conversion of forests (deforestation)</p> <p>The ERT concluded, based on the area of the missing territories, that their emissions and removals are likely to be small and adjustments would not need to be calculated to the total LULUCF net emissions and emissions from conversion of forests in accordance with decision 22/CMP.1, in conjunction with decision 4/CMP.11, annex, paragraph 80(c), and decided to accept the incomplete estimates submitted by the Party</p>	
3.	Calculation of the assigned amount	<p>In the original submission of the report to facilitate the calculation of the assigned amount (initial report), the United Kingdom presented as base-year emissions the value of 779 837 891 t CO₂ eq. The ERT noted that this base year corresponds to the base year under the Convention (1990) and not the base year as indicated in decision 2/CMP.8, annex I, paragraph 1(b); that is, 1990 for CO₂, CH₄ and N₂O and 1995 for HFCs, PFCs, SF₆ and NF₃ (in the case of the United Kingdom)</p> <p>In the revised submission of its initial report (see also ID#2 above and ID#8 below) the United Kingdom calculated the value of the base-year emissions, in accordance with decision 2/CMP.8, annex I, paragraph 1(b), as 803 191 325 t CO₂ eq (including GHG emissions from conversion of forests (deforestation), for which the value is 246 048 t CO₂ eq)</p>	Not a problem
4.	Calculation of the commitment period reserve (CPR)	<p>The CPR was calculated in accordance with the annex to decision 18/CP.7, the annex to decision 11/CMP.1 and decision 1/CMP.8, paragraph 18</p> <p>However, the ERT noted that there are some inconsistencies in the information reported by the United Kingdom. The value reported by the Party in the NIR is different from that provided in the original submission of the Party’s report to facilitate the calculation of the assigned amount (initial report). The Party reports in its NIR that the CPR is 2 471 658 632 t CO₂ eq, calculated as 90% of its adjusted assigned amount, whereas the CPR reported in the United Kingdom’s initial report is 2 470 443 599 t CO₂</p>	Not a problem

ID#	Finding classification	Description of the finding	Classification of problem
		<p>eq</p> <p>On 29 August 2017, the United Kingdom submitted a revised version of its initial report; however, the ERT noted inconsistencies in the way the Party had calculated the CPR based on 100% of eight times its 2014 emission. The ERT considers that the CPR should be calculated using the total emissions in 2014, excluding LULUCF (526 732 105 t CO₂ eq)</p>	
5.	Accounting of activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol	<p>The United Kingdom reported its forest management cap in the CRF table “accounting” as 224 972.635 kt CO₂ eq (in the resubmitted CRF tables provided to the ERT on 21 September 2017)</p> <p>Based on the revised estimates provided by the Party, the base-year emissions, excluding LULUCF and GHG emissions from conversion of forests (deforestation), are 802 945 277 t CO₂ eq. Based on this value, the ERT concluded that the value of the forest management cap is 28 103.084 kt CO₂ eq, which, multiplied by 8, is 224 824.677 kt CO₂ eq</p>	Not a problem
6.	Accounting of activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol	<p>The ERT noted that no information was included on how the United Kingdom’s national system, under Article 5, paragraph 1, of the Kyoto Protocol, will identify land areas associated with all additional elected activities (cropland management, grazing land management, and wetland drainage and rewetting). In response to a question raised by the ERT during the review, the Party provided sufficient information on how it identified land areas of cropland management and grazing land management, as both areas are already part of the reporting. For wetland drainage and rewetting, the United Kingdom explained that a system is not yet in place; however, the Party provided sufficient information on an ongoing project to justify that it will be able to identify areas of wetland drainage and rewetting in the future</p>	Transparency
7.	Reporting pursuant to Article 3.7 ter of the Doha Amendment	<p>In line with the terms of the joint fulfilment of the European Union, its member States and Iceland under Article 3 of the Kyoto Protocol, and as described in the report to facilitate the calculation of the assigned amount of the European Union, Article 3, paragraph 7 ter, of the Kyoto Protocol is applied to the joint assigned amount of the European Union, its member States and Iceland for the second commitment period. In its report, the European Union includes the value for the difference between the joint assigned amount for the second commitment period and average annual emissions for the first three years of the first commitment period for the member States and Iceland, multiplied by 8. The report of the European Union also clarifies that the approach used to calculate average annual emissions for the first three years of the first commitment period is the gases and sources listed in Annex A to the Kyoto Protocol</p>	Not a problem
8.	National system	<p>As identified by the ERT during the review, the United Kingdom had not defined the final extent of its territorial coverage for the second commitment period of the Kyoto Protocol in its original submission of the report to facilitate the calculation of the assigned amount (initial report) (see also ID#2 above)</p> <p>Based on the information in the initial report, the ERT considered that the overall organization of the national system of the United Kingdom, including the effectiveness and reliability of the institutional, procedural and legal arrangements, is not fully performing the functions required by the guidelines for national systems for the estimation of anthropogenic GHG emissions by sources and removals by sinks under Article 5, paragraph 1, of the Kyoto Protocol, as included in the annex to decision 19/CMP.1. It is part of the mandatory general functions of the national system to “Provide</p>	Completeness

ID#	Finding classification	Description of the finding	Classification of problem
		<p>information necessary to meet the reporting requirements defined in the guidelines under Article 7 in accordance with the relevant decisions of the COP and/or COP/MOP” (decision 19/CMP.1 in conjunction with decision 3/CMP.11, annex, paragraph 10(e))</p> <p>In consequence, the ERT decided to raise a potential question of implementation in the draft report sent to the Party for comments. On 29 August 2017, the United Kingdom resubmitted its initial report, clarifying the territorial coverage, and the ERT concluded that the potential question of implementation was no longer applicable (see also ID#2 above, and document FCCC/ARR/2016/GBR, ID#G.12 and ID#G.13). However, the ERT also concluded that the inventory is not complete for the LULUCF sector and the KP-LULUCF activities (see document FCCC/ARR/2016/GBR, ID#L.19 and ID#KL.16). The ERT notes, in particular, that in accordance with decision 2/CMP.7, annex, paragraph 25, national inventory systems established under Article 5, paragraph 1, shall ensure that areas of land subject to KP-LULUCF activities are identifiable, and information on these areas shall be provided by each Party included in Annex I in their national inventories in accordance with Article 7 of the Kyoto Protocol</p>	
9.	National registry	<p>The ERT noted that the Party reported in the 2015 NIR (section 12.4) that it will establish a PPSR account in its national registry as soon as it is technically possible. The ERT also notes that the 2016 standard independent assessment report for the United Kingdom indicates that the PPSR is not yet established in the Party’s registry but will be available before activities under the second commitment period are due to take place</p>	Not a problem
10.	Adjustments	<p>The ERT has not identified the need to apply any adjustments to the estimate for the assigned amount for the second commitment period, as reported by the United Kingdom in its report to facilitate the calculation of the assigned amount</p>	Not a problem

Abbreviations: Article 8 review guidelines = “Guidelines for review under Article 8 of the Kyoto Protocol”, CPR = commitment period reserve, CRF = common reporting format, ERT = expert review team, GHG = greenhouse gas, KP-LULUCF = LULUCF emissions and removals from activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol, LULUCF = land use, land-use change and forestry. NIR = national inventory report, PPSR = previous period surplus reserve.

^a The report to facilitate the calculation of the assigned amount for the European Union is available at <http://unfccc.int/national_reports/initial_reports_under_the_kyoto_protocol/second_commitment_period_2013-2020/items/9499.php>.

^b At the time of publication of this report, the European Union had not yet submitted its instrument of ratification of the Doha Amendment and the information on the joint implementation of such an amendment.

IV. Questions of implementation

- No questions of implementation were identified by the ERT during the review.

Annex I

Key relevant data for the United Kingdom of Great Britain and Northern Ireland

1. Table 4 provides key data and parameters for, and elections by, the United Kingdom of Great Britain and Northern Ireland, relevant for the implementation of the second commitment period of the Kyoto Protocol. The information included in table 4 is as given by the Party in its report to facilitate the calculation of the assigned amount, unless otherwise specified.

Table 4

Key relevant data for the United Kingdom of Great Britain and Northern Ireland^a

<i>Key information or parameter provided</i>	<i>Comment</i>
<i>General Party information</i>	
Did the Party have a QELRC in the first commitment period?	Yes
The United Kingdom's QELRC in the second commitment period	The United Kingdom will implement its reduction target under the second commitment period jointly with the European Union, its member States and Iceland as described in ID#1, table 3. The QELRC for the European Union, its member States and Iceland is 80% of the base-year emissions
Has the Party reached an agreement under Article 4 of the Kyoto Protocol to fulfil its commitments jointly with other Parties?	Yes
Base year	1990
Base year for HFCs, PFCs and SF ₆	1995
Base year for NF ₃	1995
Base-year emissions, as reported by the Party	803 191 325 t CO ₂ eq, including GHG emissions from conversion of forests (deforestation). See also ID#3 in table 3
<i>Information related to the calculation of the assigned amount and the commitment period reserve</i>	
Assigned amount, as reported by the Party	2 744 937 332 t CO ₂ eq, including GHG emissions from conversion of forests (deforestation). See also ID#1 in table 3
Approach used to calculate the average annual emissions for the first three years of the first commitment period	This difference is calculated on the basis of the joint assigned amount of the European Union, its member States and Iceland and is based on the gases and sources listed in Annex A to the Kyoto Protocol
Difference between the assigned amount for the second commitment period and average annual emissions for the first three years of the first commitment period, multiplied by 8, as reported by the Party and agreed by the ERT	This difference is calculated on the basis of the joint assigned amount of the European Union, its member States and Iceland and is based on the gases and sources listed in Annex A to the Kyoto Protocol
Commitment period reserve, as reported by the Party	2 470 443 599 t CO ₂ eq. See also ID#4 in table 3
<i>Information related to activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol</i>	

<i>Key information or parameter provided</i>	<i>Comment</i>
LULUCF parameters	Minimum tree crown cover: 20% Minimum land area: 0.1 ha Minimum tree height: 2 m
Elections under Article 3, paragraphs 3 and 4, of the Kyoto Protocol:	
(a) Afforestation/reforestation	Commitment period accounting
(b) Deforestation	Commitment period accounting
(c) Forest management	Commitment period accounting
(d) Cropland management	Not elected for the first commitment period, but elected for the second commitment period. Commitment period accounting
(e) Grazing land management	Not elected for the first commitment period, but elected for the second commitment period. Commitment period accounting
(f) Revegetation	Not elected
(g) Wetland drainage and rewetting	Elected. Commitment period accounting
FMRL	-8.268 Mt CO ₂ eq/year
Technical corrections to the FMRL as reported in the original submission and agreed by the ERT	-5.658 Mt CO ₂ eq/year
3.5% of total base year GHG emissions, excluding LULUCF, as reported by the Party	Not reported in the original submission
3.5% of total base year GHG emissions, excluding LULUCF, final value, as calculated by the ERT	28 103.084 kt CO ₂ eq. See also ID#5 in table 3
3.5% of total base year GHG emissions, excluding LULUCF, multiplied by 8, as reported by the Party in the original submission	224 972.635 kt CO ₂ eq
3.5% of total base year GHG emissions, excluding LULUCF and including indirect CO ₂ emissions, multiplied by 8, final value. as calculated by the ERT	224 824.677 kt CO ₂ eq. See also ID#5 in table 3
Will the Party exclude emissions from natural disturbances in accounting for:	
(a) Afforestation and reforestation	Yes
(b) Forest management	Yes

Abbreviations: ERT = expert review team, FMRL = forest management reference level, GHG = greenhouse gas, LULUCF = land use, land-use change and forestry, QELRC = quantified emission limitation and reduction commitment.

2. Tables 5–9 provide an overview of total greenhouse gas emissions and removals, as submitted by the United Kingdom. Where a Party has decided to voluntarily report indirect carbon dioxide emissions, this is noted in the relevant table.

Table 5
Total greenhouse gas emissions for the United Kingdom of Great Britain and Northern Ireland, base year^a–2014^b
 (kt CO₂ eq)

Year	Total GHG emissions excluding indirect CO ₂ emissions		Total GHG emissions including indirect CO ₂ emissions ^c		Land-use change (Article 3.7 bis as contained in the Doha Amendment) ^d
	Total including LULUCF	Total excluding LULUCF	Total including LULUCF	Total excluding LULUCF	
Base year	803 195.91	802 945.28	803 195.91	802 945.28	246.05
1990	799 561.70	799 311.06	799 561.70	799 311.06	
1995	751 529.75	751 697.24	751 529.75	751 697.24	
2000	713 886.08	716 808.69	713 886.08	716 808.69	
2010	605 440.41	613 250.82	605 440.41	613 250.82	
2011	556 789.31	565 116.74	556 789.31	565 116.74	
2012	573 813.47	582 173.60	573 813.47	582 173.60	
2013	560 680.86	569 307.74	560 680.86	569 307.74	
2014	517 765.65	526 732.11	517 765.65	526 732.11	

Abbreviations: GHG = greenhouse gas, LULUCF = land use, land-use change and forestry.

^a Base year refers to the base year under the Kyoto Protocol, which is 1990 for CO₂, CH₄ and N₂O, and 1995 for HFCs, PFCs, SF₆ and NF₃.

^b Emissions/removals reported in the sector other (sector 6) are not included in total GHG emissions.

^c The Party has not reported indirect CO₂ emissions in common reporting format table 6.

^d The value reported in this column refers to 1990.

Table 6
Greenhouse gas emissions by gas for the United Kingdom of Great Britain and Northern Ireland, excluding land use, land-use change and forestry, 1990–2014^{a, b}
 (kt CO₂ eq)

<i>Year</i>	<i>CO₂^c</i>	<i>CH₄</i>	<i>N₂O</i>	<i>HFCs</i>	<i>PFCs</i>	<i>Unspecified mix of HFCs and PFCs</i>	<i>SF₆</i>	<i>NF₃</i>
1990	595 692.81	137 525.48	48 770.37	14 391.43	1 651.50	NO, NE	1 279.06	0.42
1995	560 513.93	130 860.49	39 366.21	19 094.50	596.91	NO, NE	1 264.37	0.83
2000	560 576.28	114 903.23	29 038.06	9 875.03	596.78	NO, NE	1 817.61	1.69
2010	506 754.81	66 656.71	22 176.95	16 688.90	287.71	NO, NE	685.47	0.27
2011	464 083.13	63 702.57	21 096.45	15 212.30	416.93	NO, NE	605.05	0.30
2012	483 683.35	60 925.66	20 954.97	15 771.59	255.04	NO, NE	582.65	0.33
2013	475 129.18	56 159.77	21 063.87	16 154.64	318.73	NO, NE	481.20	0.36
2014	434 093.26	53 855.61	21 637.08	16 399.28	278.31	NO	468.16	0.40
Per cent change 1990–2014	–27.1	–60.8	–55.6	14.0	–83.1	NA	–63.4	–4.0

Abbreviations: NA = not applicable, NE = not estimated, NO = not occurring.

^a Emissions/removals reported in the sector other (sector 6) are not included in total greenhouse gas emissions.

^b The United Kingdom did not report indirect carbon dioxide emissions in common reporting format table 6.

Table 7

Greenhouse gas emissions by sector for the United Kingdom of Great Britain and Northern Ireland, 1990–2014^{a, b}
(kt CO₂ eq)

<i>Year</i>	<i>Energy</i>	<i>IPPU</i>	<i>Agriculture</i>	<i>LULUCF</i>	<i>Waste</i>	<i>Other^c</i>
1990	609 796.18	66 795.09	53 416.92	250.63	69 302.87	
1995	566 259.54	61 208.35	52 693.30	-167.49	71 536.06	
2000	558 853.70	41 174.30	49 733.57	-2 922.60	67 047.12	
2010	502 297.99	36 333.67	44 169.10	-7 810.41	30 450.07	
2011	460 226.01	32 801.11	44 065.06	-8 327.43	28 024.56	
2012	480 224.19	33 096.18	43 538.04	-8 360.13	25 315.19	
2013	468 634.76	35 189.97	43 805.35	-8 626.88	21 677.66	
2014	427 435.64	35 035.54	44 854.53	-8 966.45	19 406.39	
Per cent change	-29.9	-47.5	-16.0	-3 677.5	-72.0	
1990–2014						

Abbreviations: IPPU = industrial processes and product use, LULUCF = land use, land-use change and forestry, NA = not applicable.

^a Emissions/removals reported in the sector other (sector 6) are not included in total greenhouse gas emissions.

^b The United Kingdom did not report indirect carbon dioxide emissions in common reporting format table 6.

^c “Other sector” is reported as blank in the Party’s submission.

Annex II

Documents and information used during the review

A. Reference documents

“Guidelines for national systems for the estimation of anthropogenic greenhouse gas emissions by sources and removals by sinks under Article 5, paragraph 1, of the Kyoto Protocol”. Annex to decision 19/CMP.1. Available at <<http://unfccc.int/resource/docs/2005/cmp1/eng/08a03.pdf#page=14>>.

“Guidelines for the preparation of the information required under Article 7 of the Kyoto Protocol”. Annex to decision 15/CMP.1. Available at <<http://unfccc.int/resource/docs/2005/cmp1/eng/08a02.pdf>>.

“Guidelines for review under Article 8 of the Kyoto Protocol”. Annex to decision 22/CMP.1. Available at <<http://unfccc.int/resource/docs/2005/cmp1/eng/08a03.pdf#page=51>>.

“Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual greenhouse gas inventories”. Annex I to decision 24/CP.19. Available at <<http://unfccc.int/resource/docs/2013/cop19/eng/10a03.pdf#page=4>>.

“Guidelines for the technical review of information reported under the Convention related to greenhouse gas inventories, biennial reports and national communications by Parties included in Annex I to the Convention”. Annex to decision 13/CP.20. Available at <<http://unfccc.int/resource/docs/2014/cop20/eng/10a03.pdf#page=6>>.

“Implications of the implementation of decisions 2/CMP.7 to 4/CMP.7 and 1/CMP.8 on the previous decisions on methodological issues related to the Kyoto Protocol, including those relating to Articles 5, 7 and 8 of the Kyoto Protocol, Part I: Implications related to accounting and reporting and other related issues”. Decision 3/CMP.11. Available at <<http://unfccc.int/resource/docs/2015/cmp11/eng/08a01.pdf#page=5>>.

“Implications of the implementation of decisions 2/CMP.7 to 4/CMP.7 and 1/CMP.8 on the previous decisions on methodological issues related to the Kyoto Protocol, including those relating to Articles 5, 7 and 8 of the Kyoto Protocol, Part II: Implications related to review and adjustments and other related issues”. Decision 4/CMP.11. Available at <<http://unfccc.int/resource/docs/2015/cmp11/eng/08a01.pdf#page=30>>.

Intergovernmental Panel on Climate Change. 2006. *2006 IPCC Guidelines for National Greenhouse Gas Inventories*. Available at <<http://www.ipcc-nggip.iges.or.jp/public/2006gl/index.html>>.

Intergovernmental Panel on Climate Change. 2014. *2013 Revised Supplementary Methods and Good Practice Guidance Arising from the Kyoto Protocol*. Available at <<http://www.ipcc-nggip.iges.or.jp/public/kpsg>>.

Intergovernmental Panel on Climate Change. 2014. *2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands*. Available at <<http://www.ipcc-nggip.iges.or.jp/public/wetlands/index.html>>.

B. Additional information provided by the Party

Responses to questions during the review were received from Mr. Stephen Forden, United Kingdom Greenhouse Gas Inventory, Department for Business, Energy and Industrial Strategy, including additional material on the methodology and assumptions used.

Annex III

Acronyms and abbreviations

CH ₄	methane
CMP	Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol
CO ₂	carbon dioxide
CO ₂ eq	carbon dioxide equivalent
CPR	commitment period reserve
CRF	common reporting format
ERT	expert review team
FMRL	forest management reference level
GHG	greenhouse gas
HFC	hydrofluorocarbon
IPCC	Intergovernmental Panel on Climate Change
IPPU	industrial processes and product use
KP-LULUCF	LULUCF emissions and removals from activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol
kt	kilotonne
LULUCF	land use, land-use change and forestry
NA	not applicable
NE	not estimated
NF ₃	nitrogen trifluoride
NO	not occurring
N ₂ O	nitrous oxide
PFC	perfluorocarbon
PPSR	previous period surplus reserve
QELRC	quantified emission limitation and reduction commitment
SF ₆	sulphur hexafluoride
UNFCCC	United Nations Framework Convention on Climate Change
